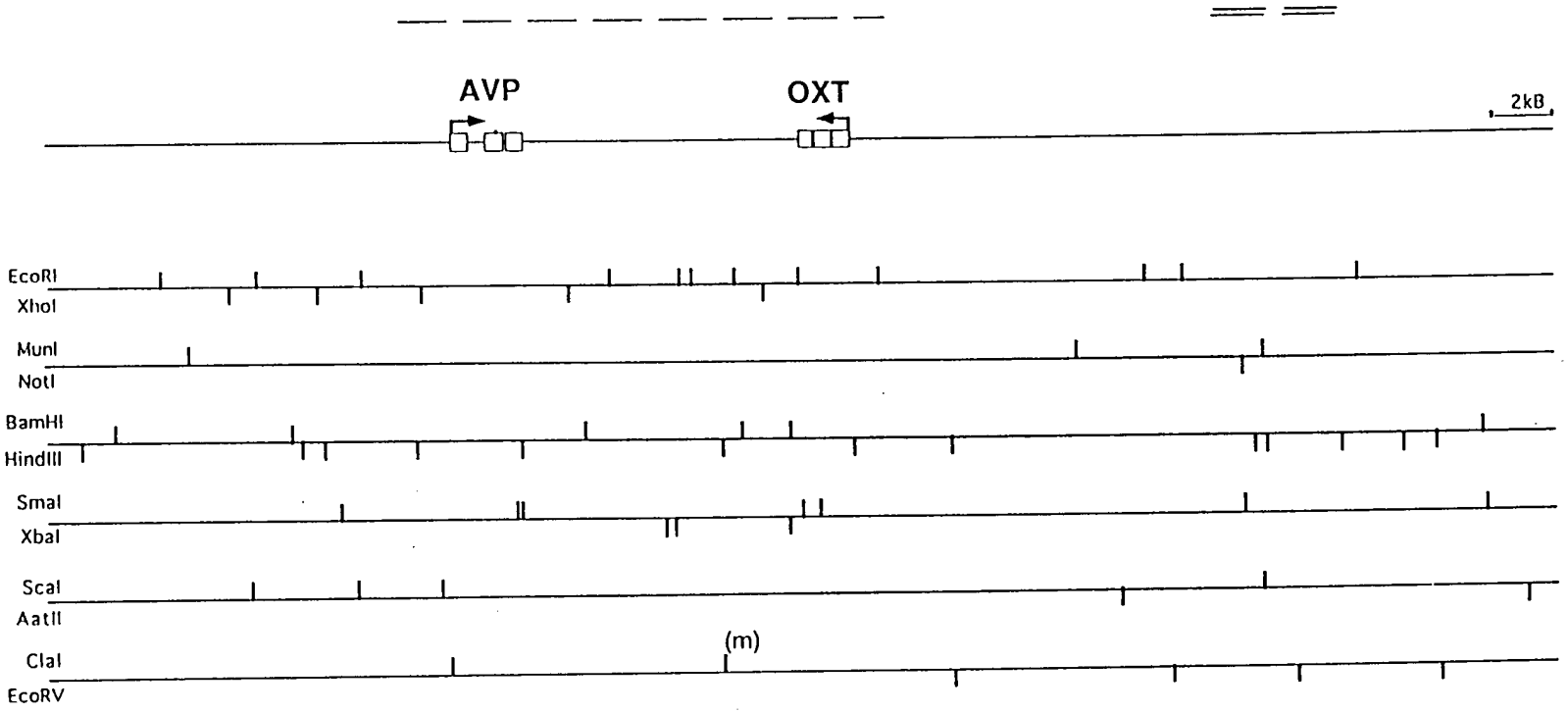

(m) denotes methylation

FIG. 1

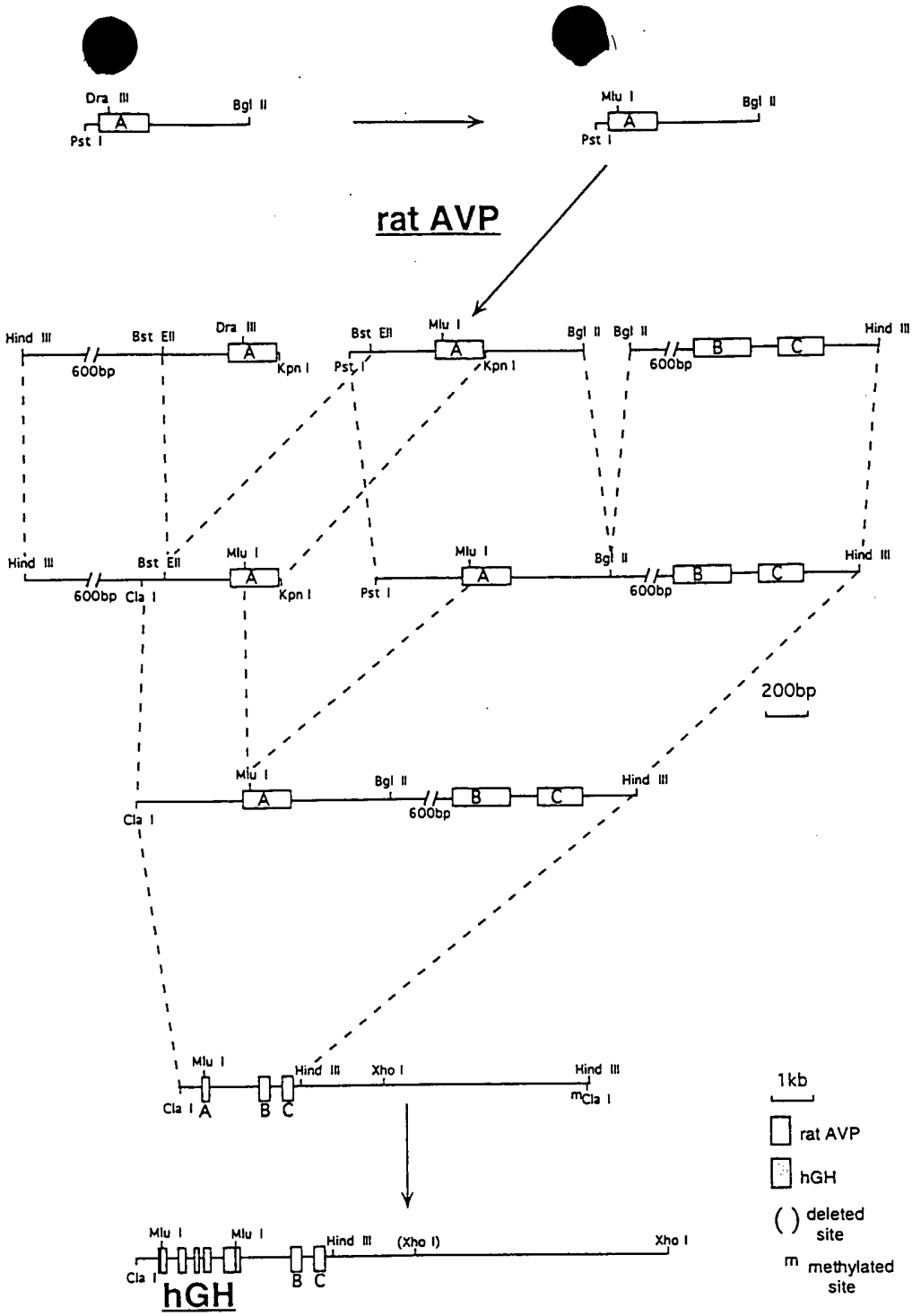
Dra III
Bgl II
Pst I
A
Mlu I
rat AVP
Hind III
Bst EII
600bp
Kpn I
B
C
Cla I
200bp
Xho I
hGH
(Xho I)
1kb
rat AVP
hGH
( ) deleted site
m methylated site

FIG. 2

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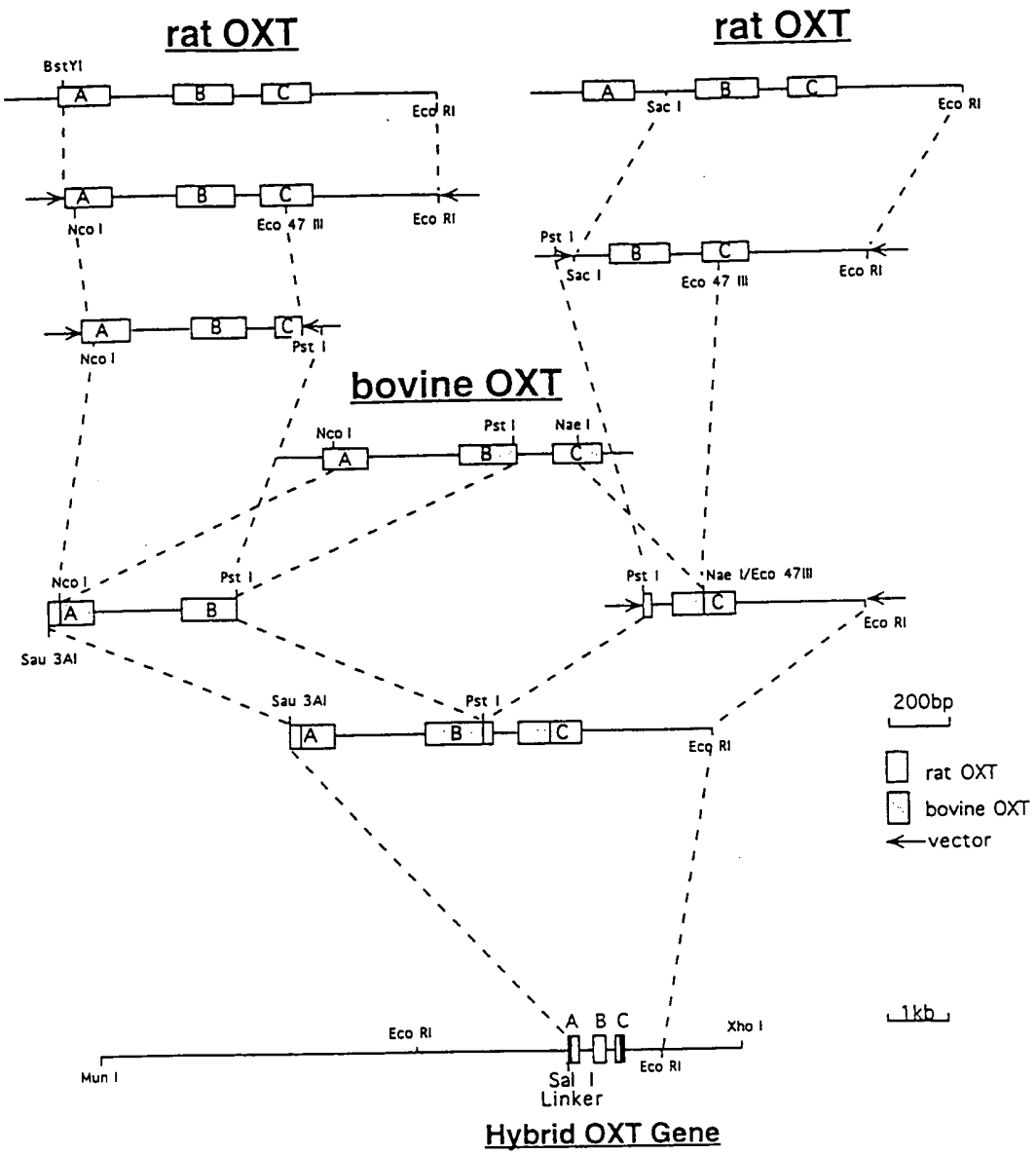

rat OXT
BstYI
A
B
C
Eco RI
Nco I
Eco 47 III
Pst I
rat OXT
Sac I
bovine OXT
Nae I
Sau 3AI
Nae I/Eco 47III
200bp
rat OXT
bovine OXT
vector
1kb
Mun I
Sal I
Linker
Xho I
Hybrid OXT Gene

FIG. 3

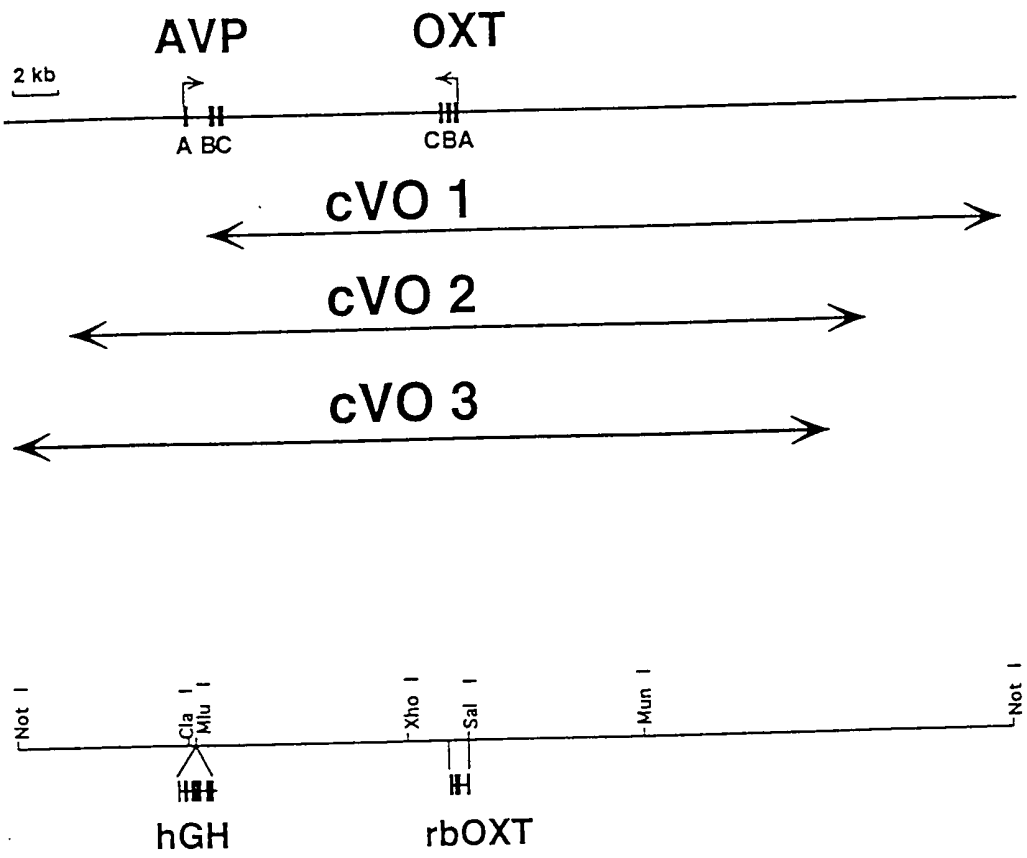

rat AVP/OXT gene locus
AVP
OXT
2 kb
A BC
CBA
cVO 1
cVO 2
cVO 3
Not I
Cla I
Mlu I
Xho I
Sal I
Mun I
Not I
hGH
rbOXT
cVO 14

FIG. 4


'TATA-BOX'
AGACATAAAAAGGTCGGTC MOUSE
AGGCATAAAAAGGCCAGGC HUMAN
CGGGCTTAAAAGGCCAGAC COW
AGGCATAAAAAGGTCGGTC RAT
AGGCATAAAAAAGTCGGTC cVO 14
Base Substitution

FIG. 5

Figure 6 5'OT-EST PROTEIN OF DIFFERENT SPECIES

Mouse
MLRALNRLAQRPGDRPPTPLLLPVRGRKTRHDPPAKSKVGRVQTPPAVDPAEFFVLTERY
GQYRETVRALRLEFTLDVRRKLHEARAGVLAERKAQQAITEHRELMAWNRDENRRMQELR
IARLQLEAQAQEVQKAEAQRQRAQEEQAWVQLKEQEVLKLQEEAKNFITRENLEARIEEA
LDSPKSYNWAVTKEGQVVRN

Rat
MLRALNRLAARPGGQPPTLLLLPVRGRKTRHDPPAKSKVGRVKMPPAVDPAELFVLTERY
RQYRETVRALRREFTLEVRGKLHEARAGVLAERKAQEAIREHQELMAWNREENRRLQELR
IARLQLEAQAQELRQAEVQAQRAQEEQAWVQLKEQEVLKLQEEAKNFITRENLEARIEEA
LDSPKSYNWAVTKEGQVVRN

Human
MLRALSRLGAGTPCRPRAPLVLPARGRKTRHDPLAKSKIERVNMPPAVDPAEFFVLMERY
QHYRQTVRALRMEFVSEVQRKVHEARAGVLAERKALKDAAEHRELMAWNQAENRRLHELR
IARLRQEEREQEQRQALEQARKAEEVQAWAQRKEREVLQLQEEVKNFITRENLEARVEAA
LDSRKNYNWAITREGLVVRPQRRDS

Alignment

```
Mouse   MLRALNRLAQRPGDRPPTPLLLPVRGRKTRHDPPAKSKVGRVQTPPAVDPAEFFVLTERY
Rat     MLRALNRLAARPGGQPPTLLLLPVRGRKTRHDPPAKSKVGRVKMPPAVDPAELFVLTERY
Human   MLRALSRLGAGTPCRPRAPLVLPARGRKTRHDPLAKSKIERVNMPPAVDPAEFFVLMERY

Mouse   GQYRETVRALRLEFTLDVRRKLHEARAGVLAERKAQQAITEHRELMAWNRDENRRMQELR
Rat     RQYRETVRALRREFTLEVRGKLHEARAGVLAERKAQEAIREHQELMAWNREENRRLQELR
Human   QHYRQTVRALRMEFVSEVQRKVHEARAGVLAERKALKDAAEHRELMAWNQAENRRLHELR

Mouse   IARLQLEAQAQEVQKAEAQRQRAQEEQAWVQLKEQEVLKLQEEAKNFITRENLEARIEEA
Rat     IARLQLEAQAQELRQAEVQAQRAQEEQAWVQLKEQEVLKLQEEAKNFITRENLEARIEEA
Human   IARLRQEEREQEQRQALEQARKAEEVQAWAQRKEREVLQLQEEVKNFITRENLEARVEAA

Mouse   LDSPKSYNWAVTKEGQVVRN
Rat     LDSPKSYNWAVTKEGQVVRN
Human   LDSRKNYNWAITREGLVVRPQRRDS
```

Predicted deleted form in JP17
MLRALNRLAARPGGQPPTLLLLPVRGprprsfsapfssqds

↑

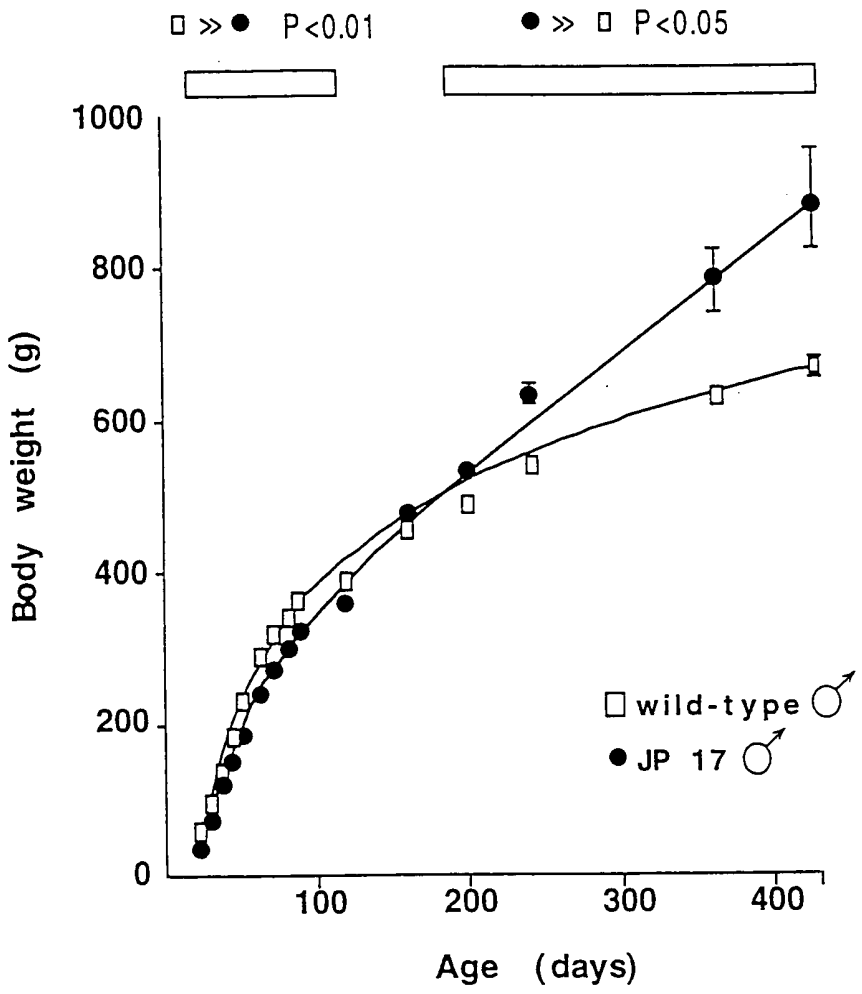

□ » ● P<0.01
● » □ P<0.05
1000
800
600
400
200
0
Body weight (g)
100
200
300
400
Age (days)
□ wild-type ♂
● JP 17 ♂

FIG. 7

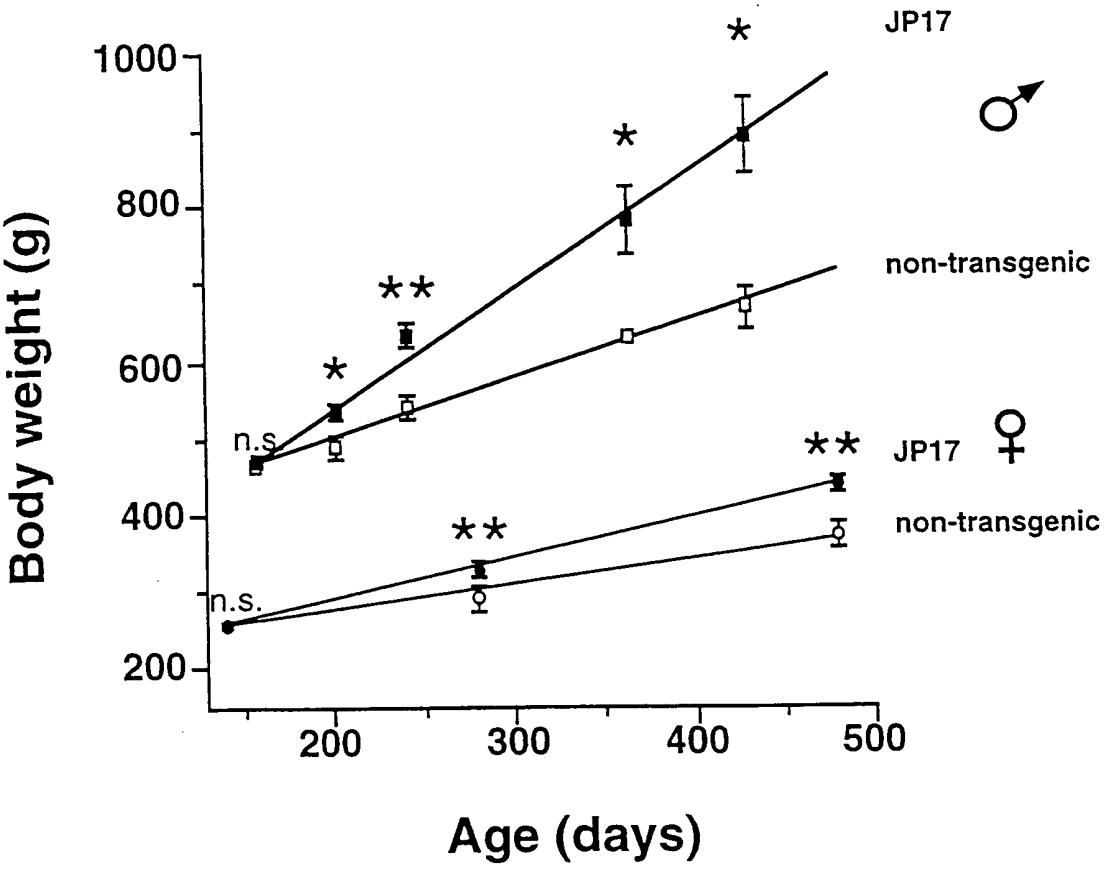
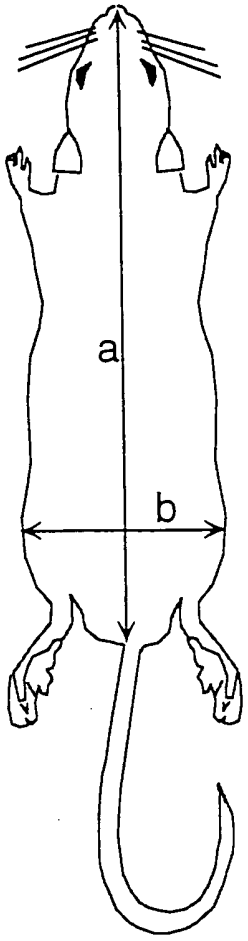

JP17
non-transgenic
JP17
non-transgenic
Body weight (g)
Age (days)
1000
800
600
400
200
200
300
400
500
n.s.
n.s.
*
*
*
**
**
**

FIG. 8



20 weeks

	non-transgenic	JP17 transgenic
a	260.33 ± 0.28	243.34 ± 0.13 ***
b	92.67 ± 0.29	115.14 ± 0.24***

52 weeks

	non-transgenic	JP17 transgenic
a	273.83 ± 0.28	261.0 ± 0.45 ns
b	113.83 ± 0.10	157.83 ± 0.61 ***

FIG. 9

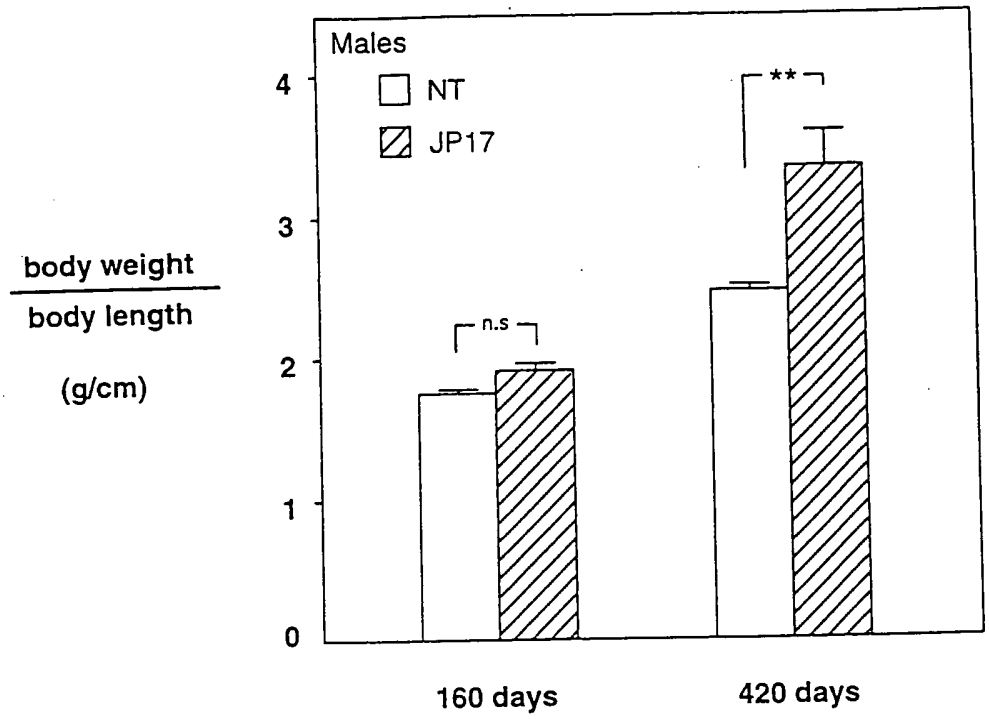
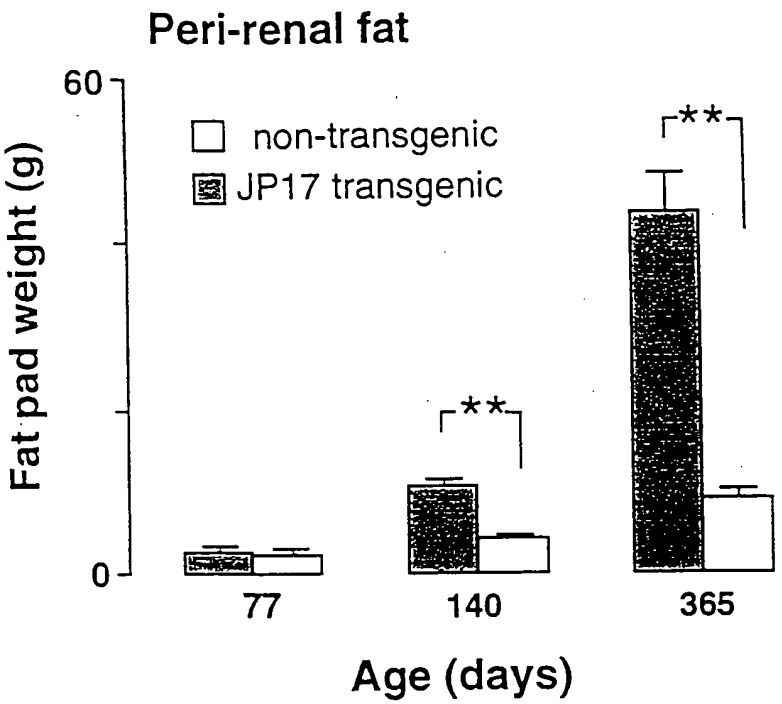

Males
NT
JP17
body weight
body length
(g/cm)
4
3
2
1
0
n.s
**
160 days
420 days

FIG. 10


Peri-renal fat
60
0
Fat pad weight (g)
non-transgenic
JP17 transgenic
**
**
77
140
365
Age (days)

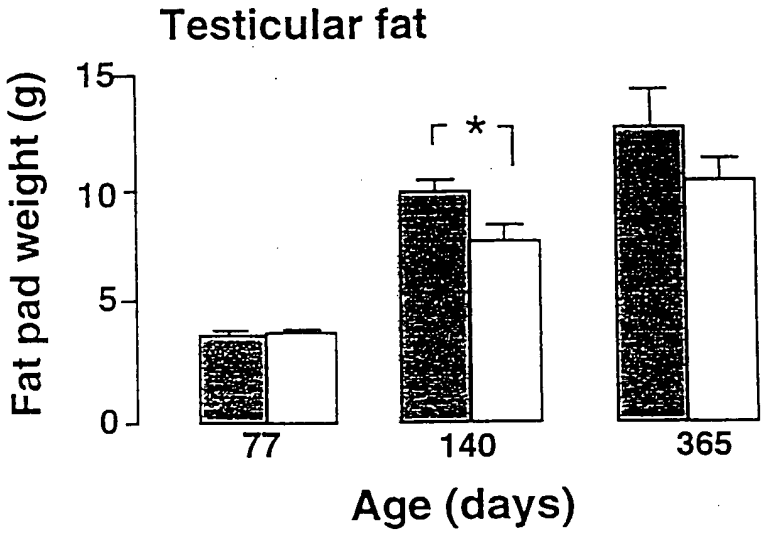

Testicular fat
15
10
5
0
Fat pad weight (g)
*
77
140
365
Age (days)

FIG. 11

	Cholesterol mg/dl	Triglyceride mg/dl	Glucose mg/dl	Insulin ng/ml	Leptin ng/ml	Corticosterone ng/ml
MALE TRANSGENIC	122.3 +/- 6.4	*295.6 +/- 28.7	114.7 +/- 4.2	1.94 +/- 0.89	*24.4 +/- 1.49	168.9 +/- 23.5
MALE NON-TRANSGENIC	129.9 +/- 9.3	178.9 +/- 23.5	121.0 +/- 3.9	2.8 +/- 1.93	9.51 +/- 2.14	113.9 +/- 20.3
FEMALE TRANSGENIC	94.9 +/- 5.9	224.2 +/- 52.3	126.3 +/- 3.3	2.51 +/- 0.64	*14.74 +/- 1.38	256.3 +/- 104.1
FEMALE NON-TRANSGENIC	100.2 +/- 8.0	195.5 +/- 34.5	135.4 +/- 6.7	2.54 +/- 2.32	4.58 +/- 0.47	349.3 +/- 123.7

FIG. 12

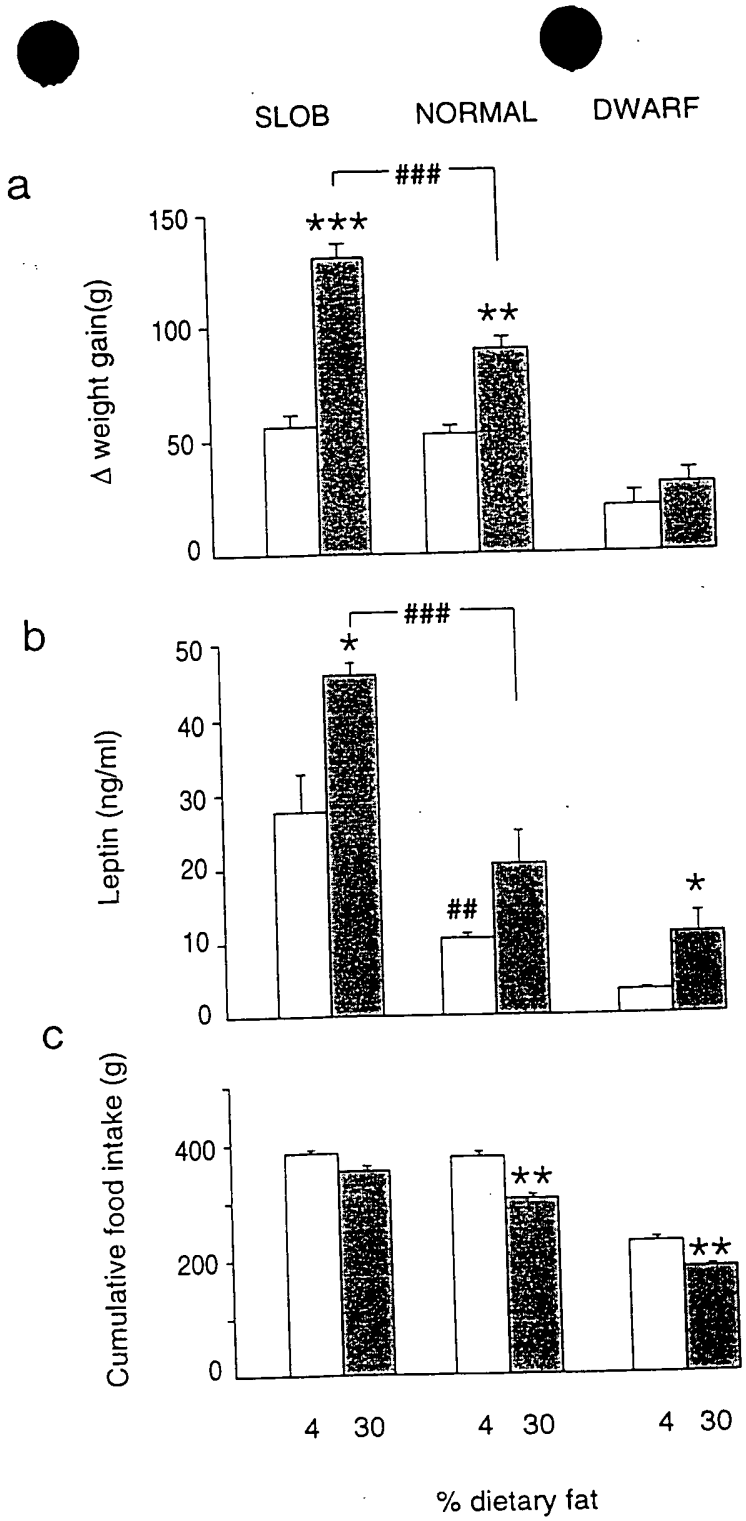

SLOB
NORMAL
DWARF
a
###
***
**
150
100
50
0
Δ weight gain(g)
b
###
*
*
##
50
40
30
20
10
0
Leptin (ng/ml)
c
400
200
0
**
**
Cumulative food intake (g)
4
30
4
30
4
30
% dietary fat

FIG. 13

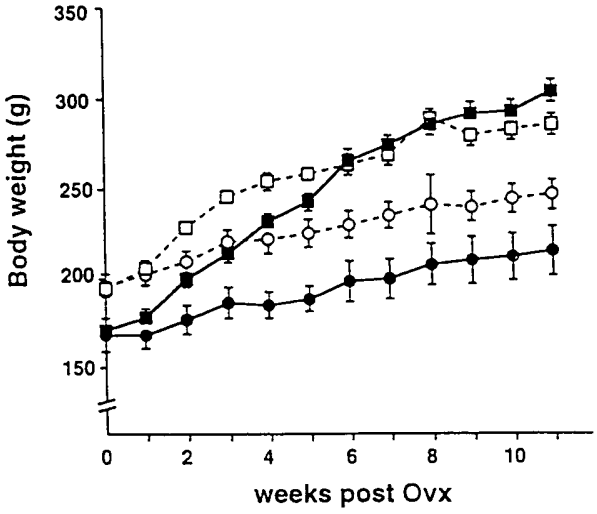


FIG 14

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